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| REPORT DOCUMENTATION PAGE | | | | Form Approved OMB No. 0704-0188 | |
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| 1. REPORT DATE (DD-MM-YYYY) (04-05-2012) | | 2. REPORT TYPE FINAL | | 3. DATES COVERED (From - To) | |
| 4. TITLE AND SUBTITLE Tactical Success and Operational Failure in the Anti-Access Area-Denial Environment: A Historical Operational Art Analysis of Operation CERBERUS | | | | 5a. CONTRACT NUMBER | |
| | | | | 5b. GRANT NUMBER | |
| | | | | 5c. PROGRAM ELEMENT NUMBER | |
| 6. AUTHOR(S) LCDR Greg Malandrino Paper Advisor (if Any): LtCol. Reagan E. Schaupp, and CDR Chad E. Piacenti | | | | 5d. PROJECT NUMBER | |
| | | | | 5e. TASK NUMBER | |
| | | | | 5f. WORK UNIT NUMBER | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Joint Military Operations Department Naval War College 686 Cushing Road Newport, RI 02841-1207 | | | | 8. PERFORMING ORGANIZATION REPORT NUMBER | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | | | | 10. SPONSOR/MONITOR'S ACRONYM(S) | |
| | | | | 11. SPONSOR/MONITOR'S REPORT NUMBER(S) | |
| 12. DISTRIBUTION / AVAILABILITY STATEMENT Distribution Statement A: Approved for public release; Distribution is unlimited. Reference: DOD Directive 5230.24 | | | | | |
| 13. SUPPLEMENTARY NOTES A paper submitted to the Naval War College faculty in partial satisfaction of the requirements of the Joint Military Operations Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy. | | | | | |
| 14. ABSTRACT Today the tactical challenges of operating within an anti-access area-denial environment form the focus of the United States Navy. While the tactical tasks are daunting, they must no longer remain the Navy's first priority. If naval leadership continues to focus on the tactical level difficulties, rather than working towards the proper development of an operational level goal linked to a desired strategic end state, the results on the high-seas will be disastrous. This paper uses an operational art analysis of the German Operation CERBERUS during World War II to demonstrate the paramount importance of the operational level over the tactical in an anti-access area-denial environment. If the U.S. Navy only solves the tactical challenges, but does not link these solutions to a properly envisioned operational level objective, we will suffer a similar failure as the Germans after Operation CERBERUS. | | | | | |
| 15. SUBJECT TERMS OPERATIONAL ART, ANTI-ACCESS AREA-DENIAL, OPERATION CERBERUS, TACTICAL SUCCESS, OPERATIONAL FAILURE | | | | | |
| 16. SECURITY CLASSIFICATION OF: | | | 17. LIMITATION OF ABSTRACT | 18. NUMBER OF PAGES 26 | 19a. NAME OF RESPONSIBLE PERSON Chairman, JMO Dept |
| a. REPORT UNCLASSIFIED | b. ABSTRACT UNCLASSIFIED | c. THIS PAGE UNCLASSIFIED | | | 19b. TELEPHONE NUMBER (include area code) 401-841-3556 |

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**Tactical Success and Operational Failure in the Anti-Access Area-Denial Environment:
A Historical Operational Art Analysis of Operation CERBERUS**

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: __XX SIGNED XX__

4 May 2012

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Abstract

Today the tactical challenges of operating within an anti-access area-denial environment form the focus of the United States Navy. While the tactical tasks are daunting, they must no longer remain the Navy's first priority. If naval leadership continues to focus on the tactical level difficulties, rather than working towards the proper development of an operational level goal linked to a desired strategic end state, the results on the high-seas will be disastrous. This paper uses an operational art analysis of the German Operation CERBERUS during World War II to demonstrate the paramount importance of the operational level over the tactical in an anti-access area-denial environment. If the U.S. Navy only solves the tactical challenges, but does not link these solutions to a properly envisioned operational level objective, we will suffer a similar failure as the Germans after Operation CERBERUS.

INTRODUCTION

Today U.S. Military leaders are faced with the following task from the *Joint Operational Access Concept (JOAC)*: “operational access...may well be the most difficult operational challenge U.S. forces will face over the coming decades.”¹ Currently, a focus on the tactical over the operational level of war defines the U.S. Navy’s approach to operations within an anti-access area-denial (A2/AD) environment. Evidence of the priority placed on the tactical and technical comes from the *Naval Operating Concept 2010 (NOC)*. The *NOC* states that in order to thwart an adversary’s anti-access capabilities, the navy is “aggressively enhancing legacy capabilities and developing new ones”.² Emphasis on the tactical has come at the expense of concentrating on the operational level of maritime warfare. Solving tactical and technical problems is only one of many required steps to be operationally successful in this demanding environment. Historically, navies have had a tendency to focus on the tactical level of war, rather than the operational. Milan Vego attributes the over-emphasis on the tactical level of war to the influence of Alfred Thayer Mahan and his concept of the decisive battle.³ If navy leadership fails to first develop an operational level objective and does not look beyond the tactical task of merely operating within the A2/AD environment, the U.S. Navy will fail at the operational level of maritime warfare.

The A2/AD mission set presents a navy with several daunting challenges: to include braving a multi-layered network of submarines, mines, advanced sensors, and land based maritime strike aircraft. Despite the recent emphasis placed on the A2/AD environment, these challenges are not new, and the previous listing describes all of the elements the British employed to prevent German access to the English Channel during World War II. The German Navy’s Operation CERBERUS serves as an example of what happens when a joint

force of naval and air elements brilliantly executes at the tactical level in an A2/AD environment, but subsequently fails at the operational level due to a poorly formulated operational objective.

The A2/AD capabilities of potential adversaries pose a great challenge to the U.S. Navy's power projection ability. According to *A Cooperative Strategy for 21st Century Seapower*, the United States Navy's "ability to overcome challenges to access and to project and sustain power ashore is the basis of our combat credibility."⁴ In attempting to overcome these challenges, the U.S. Navy is viewing A2/AD operations only through a tactical lens. The emphasis has solely been on how to defeat the Chinese DF-21, or the Iranian small boat swarm. The U.S. Navy is not fully realizing the importance of the operational, which is paramount. Because if the U.S. Navy solves the tactical, but fails to link it to a properly conceived operational objective, it will suffer a similar fate as befell the Kriegsmarine after the execution of Operation CERBERUS during World War II: operational loss and strategic failure.

BACKGROUND

A brief overview of the state of the battle in the Atlantic during 1942 serves as the backdrop to understanding the modern A2/AD operational lessons that can be derived from Operation CERBERUS. By the end of 1941, Adolf Hitler's U-boats had sunk 1,124 ships and reduced Allied imports by nearly 50%.⁵ The surface forces of the Kriegsmarine had both a productive and costly year as well. The *Scharnhorst* and *Gneisenau* had a highly successful, albeit brief, at sea period during the early portion of 1941. During the first two months of 1941, they had both ravaged the shipping lanes of the Atlantic. Together, these two German battleships sank 21 ships.⁶ They both pulled into Brest, France early on 22

March 1941 for badly required refit and repair.⁷ Barring brief breaks, they would not sail together again until the start of Operation CERBERUS.⁸

However, the Fuhrer's Navy was not without her losses, particularly the flagship of the Kriegsmarine, the *Bismarck*. The *Bismarck* was Germany's greatest battleship and on 27 May 1942 the Royal Navy sank her during her attempt to breakout into the Atlantic.⁹ With the *Bismarck* lying on the bottom of the Atlantic, the two smaller German battleships, *Scharnhorst* and *Gneisenau*, along with the heavy cruiser *Prinz Eugen*, were left as the preponderance of the remaining striking power of the German Navy surface fleet in the Atlantic.¹⁰

One reason behind the 11-month long pause between sea periods was the damage inflicted by the Royal Air Force (RAF). While in port in German-occupied France, these ships were under near-constant surveillance and subsequent air attack by Bomber Command. Throughout 1941 and into the early portion of 1942, Bomber Command launched repeated day and night attacks against the German ships tied up in Brest.¹¹ Hitler was of the opinion that what remained of his battle line would be better protected from Allied air attack in German home waters than in occupied French ports.¹² Further, Hitler was also concerned with a possible Allied invasion of Norway and considered the German surface battle fleet adequate to the task of preventing a successful Allied landing.¹³ The dual concerns of attempting to preserve the majority of the remaining German surface fleet along with the subsequent ability to thwart a potential Allied invasion of Norway combined to form the birth of the motivation that would eventually lead to the Kriegsmarine's sailing through the A2/AD environment of the English Channel.

With the goal of minimizing the ability of Allied air power to further damage these ships and in the hope of deterring and then defeating an Allied invasion of Norway, Vizeadmiral Ciliax's squadron set sail from Brest and Ushant late on the night of 11 February 1942. His squadron was composed of the battleships *Scharnhorst* and *Gneisenau*, along with the heavy cruiser *Prinz Eugen*, the 5th Destroyer Flotilla, three flotillas of E-boats, three flotillas of torpedo boats, and minesweepers.¹⁴ When light broke the following morning, Ciliax's squadron attempted to sprint through the Straits of Dover as quickly as possible while battling elements of Fighter Command, Bomber Command, Coastal Command and the Royal Navy. Roughly 280 fighter and bomber aircraft from the Luftwaffe, under the operational control of famed German fighter pilot General Adolf Galland, provided air cover during the daring dash through the A2/AD environment of the Dover Straits.¹⁵ The Luftwaffe's support of the Kriegsmarine's gauntlet run made CERBERUS one of the few joint Kriegsmarine/Luftwaffe operations of the war.

Through daring German tactical execution, combined with British missed opportunities, the *Gneisenau* and *Prinz Eugen* arrived in the German port of Brunsbüttel early on 13 March 1942 with the *Scharnhorst* entering port in Wilhelmshaven later that same day.¹⁶ Ciliax's squadron suffered few losses and mostly minor damage. CERBERUS was the largest employment of German surface firepower and the last mass employment of the German surface fleet during the entirety of World War II. However, the highly successful and audacious British commando raid on St. Nazaire on the 8 March 1942 denied the Kriegsmarine the ability to again operate a major surface combatant out of an Atlantic port, thus ending the German Navy's chances of ever again employing and servicing any Atlantic surface raiders.¹⁷

Operation CERBERUS's conclusion produced powerfully positive headlines in Germany and terrific shame within the United Kingdom. The Times in Britain stated "Vice-Admiral Ciliax has succeeded where the Duke of Media Sidonia failed...nothing more mortifying to the pride of sea power has happened in Home Waters since the 17th century."¹⁸ However, after the conclusion of CERBERUS, the British realized that their tactical ineptitude had allowed the Germans to suffer a self-inflicted operational loss; the negation of their surface fleet as a viable fighting force. British Prime Minister Winston Churchill stated, "viewed in the after-light and in its larger aspects the episode was highly advantageous to us."¹⁹ Grandadmiral Raeder's after war report echoed the British Prime Minister's conclusion; "it was a tactical success but a strategic defeat."²⁰ The Germans had mastered the tactical task of operating within an A2/AD environment, but had failed to properly formulate an operational objective. Today, the U.S. Navy faces the same risk by focusing on the tactical problems in the A2/AD environment without first developing an operational goal.

DISCUSSION AND ANALYSIS

The tactical details of the two-day sail are truly compelling from both the German and British perspectives. However, they do not lend any importance to the study of the operational level of warfare as applied to the A2/AD environment. Why was this operation concocted? Where did it go wrong operationally? And how can future naval leaders avoid the same operational level failures in the A2/AD environment?

A thorough operational art analysis of the planning behind CERBERUS will demonstrate the German failure to properly develop an operational level goal. For this reason, the bold and tactically successful effort by the Kriegsmarine during CERBERUS

ended up being for naught. CERBERUS had at its foundation an improperly developed operational objective that was not linked to the strategic goals of the Kriegsmarine.

Milan Vego, in *Joint Operational Warfare*, defines operational art as “the employment of one’s military forces to accomplish strategic objectives in a theater of war...through the design, organization, and conduct of campaigns and major operations.”²¹ Vego added that operational art is the “critical link between strategy and tactics.”²² For any major operation to be successful, it must further the accomplishment of a strategic objective. Regardless of the mission, the area or the enemy, no navy can expect to achieve strategic goals without a mastery of operational art to link tactical execution to an operational objective nested within a desired strategic goal. Merely to be able to achieve the tactical level task of operating within an A2/AD environment is not an operational objective. Major operations within this type of environment must be directed towards the accomplishment of an operational level objective. An operational art analysis shows that CERBERUS did not further the accomplishment of the desired German strategic end state.

For CERBERUS to be a success, it had to link the dauntless tactical action of braving the A2/AD capabilities of the British military in the Straits of Dover to the accomplishment of a German strategic objective. The German Navy was able to master the tactical task of operating in an A2/AD environment. However, they failed to mate their tactical mastery to a properly developed operational goal. For future major U.S. Navy operations in an A2/AD environment to be successful, they too must link the tactical task of operating in this deadly environment to the accomplishment of an expertly crafted operational level objective.

As part of his equation for operational victory, Vego identifies three operational factors of space, time and force that must be expertly balanced.²³ Crucial to a proper

maximizing of factors at the expense of the enemy are the six operational functions as defined by Vego.²⁴ A combatant commander must maximize their own advantages in the operational factors and functions at the expense of the enemy. During CERBERUS, the Kriegsmarine mastered the tactical challenges at hand, but misapplied the operational factors of force, misunderstood the operational function of protection, and misidentified the Allied theater-strategic objectives. These were the key elements that would be CERBERUS's operational undoing. The U.S. Navy must avoid these same operational pitfalls.

FACTOR FORCE

Throughout World War II, the Germans had a decidedly smaller surface fleet as compared to the Royal Navy. At its height, the Kriegsmarine was able to deploy only four true battleship class surface combatants.²⁵ Due to the inferior size of their fleet, the Kriegsmarine had no illusions of fleet-to-fleet combat and resulting victory over the Royal Navy. The Germans realized their inability to control the seas; however, they saw an opportunity to deny the British the ability to use the seas as they saw fit.

A modestly sized fleet cannot hope to contest a larger fleet's control of the seas. Rather, a smaller fleet should operate as a fleet-in-being to deny their opponent unfettered use of the seas. Stephen Corbett in *Some Principles of Naval Strategy* uses historical analysis to define the term fleet-in-being. Corbett describes it to be an inferior sized fleet with an aggressive spirit that must continue to go to sea.²⁶ A fleet-in-being permits a smaller sized fleet to contest a rival's command of the sea "by using your fleet defensively" and "refusing a regular battle".²⁷ To be successful, this inferior fleet requires the "spirit of restless and vigilant counter-attack".²⁸

The spirit of counter-attack manifests itself by the inferior sized fleet constantly putting pressure on and engaging the opponent's weaknesses. The nearly successful breakout into the Atlantic by the *Bismarck*, in combination with the surface raiding executed by the *Scharnhorst* and *Gneisenau* during their two month at sea period early in 1941, demonstrates that the Germans were aware of the need of a fleet-in-being to be aggressive and that it must continue to go to sea.

The true power of a fleet-in-being was evidenced by the myopic focus of effort by the Royal Navy to sink the *Bismarck*. During the brief deployment of the *Bismarck*, the Royal Navy devoted 5 battleships, 3 battle cruisers, 2 aircraft carriers, 11 cruisers, and 21 destroyers to do her destruction.²⁹ The subsequent stationing of the Royal Navy's Home Fleet in Scapa Flow demonstrates the requirement of a superior sized fleet to be constantly vigilant to a smaller fleet's sailing.

The preponderance of German naval surface power on the Atlantic coast, the *Scharnhorst*, *Gneisenau* and the *Prinz Eugen*, functioned as a fleet-in-being. The German Commander in Chief of the Naval Group West, Generaladmiral Saalwachter, correctly identified the small German surface forces goal: "Our numerical inferiority affords us opportunities for success only by surprise offensive sorties directed at the enemy's weak points which are to be found in his long Atlantic supply routes".³⁰ With little notice, these ships could breakout into the Atlantic and decimate an ill-defended Allied convoy. To prevent this from occurring, the Royal Navy was forced to remain vigilant as to the location and actions of these ships. This three-ship squadron effectively limited the Royal Navy's superiority in factor force. For this reason, the Royal Navy was unable to fully devote their advantage in the operational factor force to combatting the German U-boats in the Atlantic.

The German use of their small surface battle fleet as a fleet-in-being had the additional effect of keeping the German operational factor of force in the Atlantic multi-dimensional. The Allies had to counter both the significant size and capability of Germany's Atlantic based U-boats, along with devoting time, men and assets to countering the remaining muscle of the German Atlantic based surface fleet. The second order effect of the multi-dimensional nature of the German operational factor force was that it aided Grand Admiral Raeder's U-boats to be even more effective in their attrition and disruption of Allied convoys and sea lines of communication. Up until July of 1942, the Allies suffered some of their highest losses of the entire war.³¹ As a fleet-in-being, the Kriegsmarine was mitigating the extreme German disadvantage in factor force.

When operating with such limited naval assets, every slim margin of advantage and every minor manner of mitigation of a disadvantage became crucial to the Germans. Operation CERBERUS's removal of all major German surface combatants from the Atlantic amplified an already glaring disadvantage in factor force. Had factor force been properly applied in the design of this major operation, the Germans would have realized the need to prioritize the use of these three vessels solely as a fleet-in-being in the Atlantic. Following the minimization via Operation CERBERUS of the Atlantic German surface fleet, the Royal Navy was able to focus solely on the German U-boat menace in the Atlantic, rather than devoting attention and assets to the Kriegsmarine's Atlantic fleet-in-being.

FUNCTION PROTECTION

One of Vego's five operational functions, operational protection, is "a series of actions...aimed at preserving the effectiveness and survivability of military...sources of power."³² The Germans in the conception of CERBERUS misapplied the operational

function of protection. The German occupied French ports on the Atlantic were an ideal location from which to conduct anti-convoy sea denial operations. However, they were also perilously close to RAF bomber bases. While in port from March of 1941 until February of 1942, the *Scharnhorst*, *Gneisenau* and *Prinz Eugen* were bombed nearly day and night by Bomber Command.³³ All three vessels suffered major damage that delayed their dates of sail along with significant loss of life to their crews.³⁴ This formed the backdrop of the schism that developed within the German high command over what to do with the German battleships home ported in occupied France.

Adolf Hitler was becoming ever more skeptical of what these expensively built, maintained, and repaired ships would be able to accomplish in the battle of the Atlantic.³⁵ In the hope that they would be less vulnerable to British air attack in Germany, he directed the Kriegsmarine to plan for the return of these ships to German home waters. For these reasons, CERBERUS had at its heart a misconceived maximization of the operational function of protection.

Hitler reasoned that these ships would be less susceptible to Allied air attack in Germany than they had been in France. However, even after the conclusion of CERBERUS with the *Scharnhorst*, *Gneisenau* and *Prinz Eugen* tied up in Brunsbüttel and Wilhelmshaven respectively, they continued to suffer from repeated Allied air attack. Specifically, *Gneisenau* never again put to sea after being severely damaged by an RAF air raid on 26 February 1942.³⁶ This major German joint operation was supposed to maximize the operational function of protection so that these ships could be used in successive major operations. However, the German operational execution of CERBERUS had the effect of accomplishing exactly what they hoped to avoid: the destruction of the combat power of the

German surface fleet. Tactical success at operating within an A2/AD environment was rendered inconsequential due to an improperly developed operational level objective. Due to CERBERUS, the German High Command took these ships out of the war, rather than the guns, bombs and torpedoes of the United Kingdom. Post-CERBERUS, the Kriegsmarine's disadvantage in factor force was exacerbated.

While in German occupied French ports, there was a trade-off in the factor force-space relationship. The inadequate air cover for Brest left the factor force of the German battleships exposed. However, due to the location of Brest on the Atlantic, this disadvantage was mitigated by a greater ability in factor space to accomplish an operational goal. After successfully steaming through the A2/AD elements of the English Channel, they had now given away the ability to successfully raid convoys in the Atlantic and distract the attention of the Royal Navy. After the completion of CERBERUS, the Germans, through their own doing, were now both at a disadvantage in factor force and factor space. Regardless of how well they dealt with the tactical difficulties of operating within an A2/AD environment, CERBERUS failed to bolster the operational function of protection and it further eroded the operational factor of space for the Kriegsmarine.

OPERATIONAL-THEATER-STRATEGIC OBJECTIVE LINK

The Germans misinterpreted Allied theater and strategic objectives. Throughout 1941, there were numerous British commando raids along the coast of Norway.³⁷ These raids had the effect of convincing Hitler that the Allies would invade Norway. He viewed the *Scharnhorst* and *Gneisenau* as crucial to the defense of Norway from eventual Allied invasion. His depth of conviction on moving the remainder of his surface fleet back to

Germany was demonstrated by his desire to either use them as battleships, or to simply remove their main batteries and use them as shore batteries to defend Norway.³⁸

However, the Allies had no plans to liberate Norway, nor were any being developed. During a meeting held on 8 April 1942, the American and British Combined Chiefs of Staff decided that a cross-channel invasion would be the Allied method of opening a second front. These discussions resulted in the creation of Operation ROUNDUP, eventually evolving into Operation OVERLORD.³⁹ Thus the self-imposed relocation of the remainder of Germany's surface battle fleet to prevent an invasion that would have never occurred stands as a misguided motivation for CERBERUS's development.

Even assuming that the Allies were planning on invading Norway, two battleships of the *Scharnhorst* class would not have been able to prevent an invasion. Using the Allied invasion of Italy as an example, the Allies used 2,590 vessels and nearly 500,000 Allied soldiers, sailors, and airmen to invade and liberate Sicily.⁴⁰ Between the three of them, the *Scharnhorst*, *Gneisenau* and *Prinz Eugen* possessed a total of nine eleven-inch guns and eight eight-inch guns.⁴¹ Assuming a similar sized invasion force would have been used for the theoretical Allied invasion of Norway, an attempt by these three ships would not have amounted to anything more than harassment. German misapplication of the operational factor of force led them to the conclusion that the remaining muscle of her surface force could successfully prevent an Allied invasion of Norway.

Had the Germans correctly identified Allied theater-strategic objectives, they would have realized that the Allies had no intention of invading Norway. Hence, there would have been no factor space-force motivation for the removal of the German battleships from France.

OPERATIONAL LINK TO A STRATEGIC GOAL

The acute operational failing of CERBERUS comes from this major operation not being linked to the accomplishment of a desired strategic end state. During 1941 and into 1942, the German strategic objective was to win the war on the eastern front. Correspondingly, once Germany invaded the Soviet Union during Operation BARBAROSSA, all of Germany's focus and national power should have been devoted to the destruction of the Soviet army and the capitulation of the Soviet Union. Prior to CERBERUS, the German efforts in the battle of the Atlantic served this greater strategic goal with the starvation of England as their operational objective. With a weakened England, the Germans would be able to singularly devote their attention to fighting the war against the Soviet Union.

The successful completion of *Scharnhorst*, *Gneisenau* and *Prinz Eugen*'s daring passage through the A2/AD region established by the British did not further the accomplishment of this strategic goal. CERBERUS ended the sea denial threat posed by the Kriegsmarine's fleet-in-being; it ended the multi-dimensional nature of the German naval factor force in the Atlantic and it diverted much needed attention and assets from the eastern front. Due to a lack of a properly formed operational objective, the German Navy failed to further the accomplishment of a strategic end.

Vego states, "to have any lasting value, tactical success must be achieved as part of a larger and broader framework determined by strategy and policy."⁴² Ciliax's squadron successfully achieved a tremendous tactical victory by sailing through an incredibly heavily defended area of sea space against amazing odds to make it back to Germany. However, the dauntless actions of his sailors had no immutable value due CERBERUS's operational level

inapplicability. The Germans failed to properly develop an operational objective for CERBERUS while mastering the tactical challenges of sailing through the English Channel. If current U.S. Navy leadership focuses first on the tactical challenges of the A2/AD environment, development of a properly formulated operational goal becomes unlikely. The ability to simply operate within an A2/AD environment is not enough. It is crucial for tactical task mastery to be linked to accomplishing an operational level objective.

TACTICAL SOLUTIONS PRIOR TO AN OPERATIONAL OBJECTIVE

A focus on the daunting tactical and technical tasks predominates the current U.S. Military's thinking on how to conquer the modern A2/AD challenges. *Airsea Battle: A Point-of-Departure Operational Concept* attempts to solve the operational challenge by creating the AirSea Battle concept.⁴³ As defined, *AirSea Battle* has eight tactical and technical initiatives that must be overcome to be able to execute the tactical task of being able to operate within an A2/AD environment.⁴⁴ The document fails to link these eight tasks to an identified and properly developed operational level objective and continues the trend of solely solving tactical level difficulties.

Currently, the U.S. Navy lacks an operational emphasis to its focus on A2/AD. In *Meeting the Anti-Access and Area-Denial Challenge*, Robert Work listed the expansion of the size of the Navy as a means by which to counter the A2/AD threat.⁴⁵ In May 2009 Robert Work assumed the title of Under Secretary of the Navy. In October of 2010, he delivered a presentation titled *AirSea Battle: Power Projection in the Mature Guided Munitions Era* at the Counter A2/AD conference. The Under Secretary describes the entire A2/AD environment in the tactical and technical vein. His presentation was predominated with discussion of reduction and minimization of enemy salvos, while emphasizing effective

U.S. salvos.⁴⁶ The document defines the AirSea Battle at its core as being about “winning a guided munitions salvo competition.”⁴⁷ It fails to list a clearly formulated operational goal nested within a desired strategic end state. Furthermore, the *NOC* lists a combined arms approach to operating within the A2/AD environment that includes “superior warfare systems, and large numbers of combat ready platforms”.⁴⁸

No amount of tactical perfection or technical wizardry within the A2/AD environment will enable an operation to be successful if the U.S. Navy’s actions are not linked to an operational objective nested within a desired strategic end state. Forming an operational level objective first, and then deriving tactical tasks to aid in its accomplishment, is the proper manner to achieve victory in future combat operations within the A2/AD environment. To be victorious in future combat, the U.S. Navy needs to develop an operational goal associated with the A2/AD environment first.

COUNTERPOINT

Major joint combat operations within an A2/AD environment may be years into the future. For this reason, there has yet to be an operational level objective identified. The *2010 Quadrennial Defense Review* identified the requirement to develop a joint AirSea battle concept “to help guide the development of future capabilities needed for effective power projection operations”.⁴⁹

The U.S. Department of Defense has currently identified an inability for American military forces to overwhelmingly and effectively operate within a modern A2/AD environment. Numerous tactical shortcomings have been identified in the technical capabilities of American military assets to survive and operate in this most deadly of contested environments. The current reasoning holds that the Department of Defense must

first identify where the critical hardware deficiencies lie, and then begin the development of systems and capabilities to mitigate these shortcomings. This is a lengthy process. For example, the Joint Strike Fighter has been in development for over twenty years and has yet to reach initial operating capability.⁵⁰

The ponderously slow procurement process of new weapons systems provides planners with ample time to form an operational objective. The current focus on the technical and tactical supposes that the U.S. Navy will have plenty of time to develop operational level objectives during the acquisition process. The underlying rationale being that it is necessary to first be able to operate within an A2/AD environment prior to developing an operational goal.

However, developing a desired strategic end state must be the foundation of subsequent operational/tactical development. Next, an operational level objective must be identified. After operational level objectives have been developed, it is only then that specific tactical tasks can be delineated to lead to the accomplishment of the overarching operational objective; not the other way around. Tactically operating within an A2/AD environment, without first identifying what specific operational objective is to be accomplished poses great problems. It risks strategic level mission failure due to inadequate strategic-operational-tactical nesting. CERBERUS's operational level failure demonstrates what may occur if a commander fails to first properly develop an operational level objective. The present U.S. Navy concept starts at the tactical and technical level and fails to formulate an operational level objective that is linked to a strategic goal.

CONCLUSIONS AND RECOMMENDATIONS

The modern operational commander would be wise to review Operation CERBERUS. It was a daring joint operation that expertly conquered many familiarly daunting tasks within an A2/AD environment. Its operational failure serves as a stunning example of the need to tie naval tactical execution to an operational goal. Merely operating within a given environment is a tactical task, not an operational goal. The daylight passage through the Straits of Dover by Viceadmiral Ciliac's squadron was flawless with one glaring exception: operational applicability. CERBERUS's operational goal was completely at odds with German naval operations in the Atlantic theater (attrition of Allied convoys) and did not support German strategic goals (victory in the eastern front). The Germans failed to properly develop an operational goal linked to a greater strategic desired end state while mastering tactical execution within the A2/AD environment. Therefore, they suffered a terrible self-inflicted operational failure that contributed to greater German strategic catastrophe.

Operational level commanders would do well to remember Vego's words, "operational perspective and the ability to calculate and balance the factors of space, time and force will remain the keys to success in planning and conducting maritime campaigns and major naval operations."⁵¹ Merely dwelling on the particulars of the Chinese DF-21 or Iranian massed small boat tactic does not meet this end. Current attempts to solve the tactical challenges of A2/AD are attempting to resolve issues out of order. Just as during World War II, proper development of an operational objective is paramount. The modern A2/AD environment is extremely hazardous to operate within, much as the English Channel was during World War II. The U.S. Navy must first develop an operational goal. If not, no

amount of tactical brilliance will be able to prevent future naval operations from suffering a similar operational futility and strategic failure as that of the Germans during World War II.

End Notes

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- ¹ Chairman of the Joint Chiefs of Staff, *Joint Operational Access Concept*, (Washington, DC: Chairman of the Joint Chiefs of Staff, CJCS, 2012), ii.
- ² Chief of Naval Operations, *Naval Operations Concept 2010*, (Washington, DC: Department of the Navy, CNO, 2010), 55.
- ³ Milan N. Vego, "Obsessed with Tactics," *Armed Forces Journal*, accessed 20 April 2012, <http://www.armedforcesjournal.com/2008//05/3434637>.
- ⁴ Chief of Naval Operations, *A Cooperative Strategy for 21st Century Seapower CS-21*, (Washington, DC: Department of the Navy, CNO, 2007), 14.
- ⁵ Andrew Williams, *The Battle of the Atlantic: The Allies' Submarine Fight Against Hitler's Gray Wolves of the Sea*. (New York: Basic Books, 2003), 160.
- ⁶ Edwyn Gray, *Hitler's Battleships*, (London: Leo Cooper, 1992), 100.
- ⁷ John Deane Potter, *Fiasco: The Break-out of the German Battleships*, (New York: Stein and Day, 1970), 1.
- ⁸ *Ibid.*, 51.
- ⁹ David J. Bercuson, and Holger H. Herwig, *The Destruction of the Bismarck*, (Woodstock: Overlook, 2001), 296.
- ¹⁰ Ken Ford, *Run the Gauntlet: The Channel Dash 1942*, (Oxford: Osprey, 2012), 23.
- ¹¹ Potter, *Fiasco*, 20.
- ¹² *Ibid.*, 20.
- ¹³ *Ibid.*, 20.
- ¹⁴ Ford, *Run the Gauntlet*, 13.
- ¹⁵ *Ibid.*, 20.
- ¹⁶ *Ibid.*, 23.
- ¹⁷ Gerhard L. Weinberg, *A World at Arms: A Global History of World War II*, (Cambridge: Cambridge, 1994), 367.
- ¹⁸ Christopher Page, *German Capital Ships and Raiders in World War II: Volume II: From Scharnhorst to Tirpitz, 1942-1944*, (London: Frank Cass, 2002), 19.
- ¹⁹ Potter, *Fiasco*, 220.
- ²⁰ *Ibid.*, 220.
- ²¹ Milan N. Vego, *Joint Operational Warfare: Theory and Practice*, (Newport: U.S. Naval War College, 2009), I-4.
- ²² *Ibid.*, I-9.
- ²³ *Ibid.*, III-4.
- ²⁴ *Ibid.*, VIII-3.
- ²⁵ Gray, *Hitler's Battleships*, 123.
- ²⁶ Julian S. Corbett, *Some Principles of Maritime Strategy*, (London: Longmans, Green and Company, 1911), 227.
- ²⁷ *Ibid.*, 224.
- ²⁸ *Ibid.*, 227.
- ²⁹ David J. Bercuson, and Holger H. Herwig, *The Destruction of the Bismarck*, 296.
- ³⁰ Potter, *Fiasco*, 17.
- ³¹ Dan Van der Vat, *The Atlantic Campaign: World War II's Great Struggle at Sea*, (New York: Harper & Row, 1988), 287.

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- ³² Vego, *Joint Operational Warfare: Theory and Practice*, VIII-95.
- ³³ Grey, *Hitler's Battleships*, 124.
- ³⁴ *Ibid.*, 125.
- ³⁵ Potter, *Fiasco*, 11.
- ³⁶ Gerhard Koop and Klaus-Peter Schmolke, *Battleships of the Scharnhorst Class: The Scharnhorst and Gneisenau: The Backbone of the German Surface Forces at the Outbreak of War*, (London: Greenhill, 1999), 52.
- ³⁷ Dan Van der Vat, *The Atlantic Campaign*, 247.
- ³⁸ Potter, *Fiasco*, 12.
- ³⁹ Robin Neillands, *The Dieppe Raid*, (Bloomington: Indiana University Press, 2005), 75.
- ⁴⁰ A. J. Birtle, *Sicily: The U.S. Army Campaigns of World War II*, (Washington, DC: Government Printing Office, 1993), 1.
- ⁴¹ Ford, *Run the Gauntlet*, 11.
- ⁴² Vego, *Joint Operational Warfare*, I-3.
- ⁴³ Jan Van Tol, with Mark Gunzinger, Andrew Krepinevich, and Jim Thomas, *Air Sea Battle: A Point of Departure Operational Concept*, (Center for Strategic and Budgetary Assessments: 2010), IX.
- ⁴⁴ *Ibid.*, XV.
- ⁴⁵ Andrew Krepinevich, Barry Watts and Robert Work, *Meeting the Anti-Access and Area-Denial Challenge*, (Washington, DC: Center for Strategic and Budgetary Assessments, 2003), 37.
- ⁴⁶ Robert Work, "AirSea Battle: Power Projection in the Mature Guided Munitions Era," (PowerPoint presentation, AIE Counter A2/AD Conference, 26 October 2010).
- ⁴⁷ *Ibid.*
- ⁴⁸ Chief of Naval Operations, *Naval Operations Concept 2010*, 54.
- ⁴⁹ Secretary of Defense, *Quadrennial Defense Review Report: February 2010*, (Washington, DC: Department of Defense, Secretary of Defense, 2010), 32.
- ⁵⁰ Dave Majumdar, "Military May Deploy F-35 Before Formal IOC," *DefenseNews*, 24 May 2011, <http://www.defensenews.com/article/20110524/DEFSECT01/105240303/U-S-Military-May-Deploy-F-35-Before-Formal-IOC>.
- ⁵¹ Milan N. Vego, *Operational Warfare at Sea: Theory and Practice*, (New York: Routledge, 2009), 231.

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